

Abstract

A Ni/metal hydride secondary element having a positive nickel hydroxide electrode, a negative electrode having a hydrogen storage alloy, and an alkaline electrolyte, the positive electrode, provided with a three-dimensional metallic conductive structure, also contains an aluminum compound which is soluble in the electrolyte, in addition to nickel hydroxide and cobalt oxide. The aluminum compound is aluminum hydroxide and/or aluminum oxide, and the mass of the aluminum compound which is present in the positive bulk material mixture is 0.1 to 2% by weight relative to the mass of the nickel hydroxide which is present. In combination with aluminum hydroxide or aluminum oxide, the positive electrode further contains lanthanoid oxidic compounds Y_2O_3 , La_2O_3 and $Ca(OH)_2$, as well as mixtures of these compounds.